

WEST Search History

DATE: Friday, April 08, 2005

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| | | <i>DB=USPT; PLUR=YES; OP=ADJ</i> | |
| <input type="checkbox"/> | L6 | 6797010 | 1 |
| | | <i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i> | |
| <input type="checkbox"/> | L5 | L2 and thermostabl\$5 | 20 |
| <input type="checkbox"/> | L4 | L2 and humicola | 98 |
| <input type="checkbox"/> | L2 | L1 and (sequence or gene) | 160 |
| <input type="checkbox"/> | L1 | cutinase with (variant or muta\$4 or substitut\$3) | 167 |

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Search Results - Record(s) 1 through 10 of 20 returned.

☐ 1. Document ID: US 20040226672 A1

Using default format because multiple data bases are involved.

L5: Entry 1 of 20

File: PGPB

Nov 18, 2004

PGPUB-DOCUMENT-NUMBER: 20040226672

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040226672 A1

TITLE: Enzymatic hydrolysis of a polymer comprising vinyl acetate monomer

PUBLICATION-DATE: November 18, 2004

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|--------------------------|-------------|-------|---------|---------|
| Borch, Kim | Birkerod | TN | DK | |
| Lund, Henrik | Skodsborg | | DK | |
| Sharyo, Masaki | Matsudo-shi | | JP | |
| Sakaguchi, Hiromichi | Chiba city | | JP | |
| Pedersen, Hanne Host | Lyngby | | DK | |
| Fitzhenry, James William | Memphis | | US | |

US-CL-CURRENT: 162/72; 162/147, 435/277, 435/278

| Full | Title | Citation | Front | Review | Classification | Data | Reference | Sequences | Attachments | Claims | KMOC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 2. Document ID: US 20040180340 A1

L5: Entry 2 of 20

File: PGPB

Sep 16, 2004

PGPUB-DOCUMENT-NUMBER: 20040180340

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040180340 A1

TITLE: Method for creating polynucleotide and polypeptide sequences

PUBLICATION-DATE: September 16, 2004

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|-----------------|----------|-------|---------|---------|
| Arnold, Frances | Pasadena | CA | US | |
| Shao, Zhixin | Penzberg | CA | DE | |

Volkov, Alexander

South Pasadena

US

US-CL-CURRENT: 435/6; 435/91.2

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | MMMC | Draw De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|
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☐ 3. Document ID: US 20040048351 A1

L5: Entry 3 of 20

File: PGPB

Mar 11, 2004

PGPUB-DOCUMENT-NUMBER: 20040048351

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040048351 A1

TITLE: Alpha-amylase mutants

PUBLICATION-DATE: March 11, 2004

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|--------------------------|-----------|-------|---------|---------|
| Svendsen, Allan | Birkerod | | DK | |
| Borchert, Torben Vedel | Jyllinge | | DK | |
| Bisgard-Frantzen, Henrik | Bagsvaerd | | DK | |

US-CL-CURRENT: 435/204; 510/226, 510/320

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | MMMC | Draw De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|

☐ 4. Document ID: US 20030199068 A1

L5: Entry 4 of 20

File: PGPB

Oct 23, 2003

PGPUB-DOCUMENT-NUMBER: 20030199068

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030199068 A1

TITLE: High throughput mutagenesis screening method

PUBLICATION-DATE: October 23, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|----------------------|----------------|-------|---------|---------|
| Bott, Richard R. | Burlingame | CA | US | |
| Kellis, James T. JR. | Portola Valley | CA | US | |
| Morrison, Thomas B. | Winchester | MA | US | |

US-CL-CURRENT: 435/196; 435/252.3, 435/320.1, 435/69.1, 536/23.2

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | MMMC | Draw De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|
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☐ 5. Document ID: US 20030199038 A1

L5: Entry 5 of 20

File: PGPB

Oct 23, 2003

PGPUB-DOCUMENT-NUMBER: 20030199038

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030199038 A1

TITLE: Method for preparing polypeptide variants

PUBLICATION-DATE: October 23, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|-------------------|-----------|-------|---------|---------|
| Brody, Howard | Davis | CA | US | |
| Otani, Suzanne M. | Elk Grove | CA | US | |
| Cherry, Joel R. | Davis | CA | US | |

US-CL-CURRENT: 435/69.1; 435/189, 435/193, 435/196, 435/232, 435/233, 435/254.3,
435/484

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | FIGS | Drawings |
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☐ 6. Document ID: US 20030171543 A1

L5: Entry 6 of 20

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030171543

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030171543 A1

TITLE: High throughput mutagenesis screening method

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|----------------------|----------------|-------|---------|---------|
| Bott, Richard R. | Burlingame | CA | US | |
| Kellis, James T. JR. | Portola Valley | CA | US | |
| Morrison, Thomas B. | Winchester | MA | US | |

US-CL-CURRENT: 530/350; 435/320.1, 435/325, 435/455, 435/69.1, 435/7.1

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | FIGS | Drawings |
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☐ 7. Document ID: US 20030171236 A1

L5: Entry 7 of 20

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030171236

PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030171236 A1

TITLE: ALPHA-AMYLASE MUTANTS

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|--------------------------|-----------|-------|---------|---------|
| Svendsen, Allan | Birkerod | | DK | |
| Borchert, Torben Vedel | Jyllinge | | DK | |
| Bisgard-Frantzen, Henrik | Bagsvaerd | | DK | |

US-CL-CURRENT: 510/305; 435/202, 510/226

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KNOW | Draw Da |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|
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☐ 8. Document ID: US 20030170861 A1

L5: Entry 8 of 20

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030170861
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030170861 A1

TITLE: Cellobiohydrolase I gene and improved variants

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|--------------------|------------|-------|---------|---------|
| Adney, William S. | Golden | CO | US | |
| Decker, Stephen R. | Berthoud | CO | US | |
| McCarter, Suzanne | San Carlos | CA | US | |
| Baker, John O. | Golden | CO | US | |
| Nieves, Rafael | Lakewood | CO | US | |
| Himmel, Michael E. | Littleton | CO | US | |
| Vinzant, Todd B. | Golden | CO | US | |

US-CL-CURRENT: 435/209; 435/320.1, 435/325, 435/69.1, 536/23.2

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KNOW | Draw Da |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|
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☐ 9. Document ID: US 20030091691 A1

L5: Entry 9 of 20

File: PGPB

May 15, 2003

PGPUB-DOCUMENT-NUMBER: 20030091691
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030091691 A1

TITLE: Stepping process

PUBLICATION-DATE: May 15, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|--------------------------|-------|-------|---------|---------|
| Olsen, Hans Sejr | Holte | | DK | |
| Nielsen, Bjarne Ronfeldt | Virum | | DK | |

US-CL-CURRENT: 426/49

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 10. Document ID: US 20030051836 A1

L5: Entry 10 of 20

File: PGPB

Mar 20, 2003

PGPUB-DOCUMENT-NUMBER: 20030051836

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030051836 A1

TITLE: Enzymatic hydrolysis of a polymer comprising vinyl acetate monomer

PUBLICATION-DATE: March 20, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|--------------------------|-------------|-------|---------|---------|
| Borch, Kim | Birkerod | TN | DK | |
| Lund, Henrik | Skodsborg | | DK | |
| Sharyo, Masaki | Matsudo-shi | | JP | |
| Sakaguchi, Hiromichi | Chiba city | | JP | |
| Pedersen, Hanne Host | Lyngby | | DK | |
| Fitzhenry, James William | Memphis | | US | |

US-CL-CURRENT: 162/72; 162/100, 162/189

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
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Search Results - Record(s) 11 through 20 of 20 returned.

☐ 11. Document ID: US 20020137661 A1**Using default format because multiple data bases are involved.**

L5: Entry 11 of 20

File: PGPB

Sep 26, 2002

PGPUB-DOCUMENT-NUMBER: 20020137661

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020137661 A1

TITLE: METHOD FOR CREATING POLYNUCLEOTIDE AND POLYPEPTIDE SEQUENCES

PUBLICATION-DATE: September 26, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|------------------|----------------|-------|---------|---------|
| ARNOLD, FRANCES | PASADENA | CA | US | |
| SHAO, ZHIXIN | PENZBERG | DE | US | |
| VOLKO, ALEXANDER | SOUTH PASADENA | CA | US | |

US-CL-CURRENT: 514/1

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|
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☐ 12. Document ID: US 20020123445 A1

L5: Entry 12 of 20

File: PGPB

Sep 5, 2002

PGPUB-DOCUMENT-NUMBER: 20020123445

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020123445 A1

TITLE: Stability enhancing formulation components, compositions and laundry methods employing same

PUBLICATION-DATE: September 5, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|-------------------------|---------------|-------|---------|---------|
| Dykstra, Robert Richard | Cleves | OH | US | |
| Gustwiller, Marc Eric | Cincinnati | OH | US | |
| Howard, Tonya Ann | South Lebanon | OH | US | |

US-CL-CURRENT: [510/302](#); [510/309](#), [510/375](#), [510/499](#)

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Da |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|
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☐ 13. Document ID: US 20020123123 A1

L5: Entry 13 of 20

File: PGPB

Sep 5, 2002

PGPUB-DOCUMENT-NUMBER: 20020123123

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020123123 A1

TITLE: Cutinase variants

PUBLICATION-DATE: September 5, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|-------------------------|----------|-------|---------|---------|
| Svendsen, Allan | Horsholm | | DK | |
| Glad, Sanne O. Schroder | Ballerup | | DK | |
| Fukuyama, Shiro | Chiba | | JP | |
| Matsui, Tomoko | Chiba | | JP | |

*This application*US-CL-CURRENT: [435/200](#); [435/252.3](#), [435/254.2](#), [435/320.1](#), [435/69.1](#), [536/23.2](#)

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Da |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|

☐ 14. Document ID: US 6815190 B1

L5: Entry 14 of 20

File: USPT

Nov 9, 2004

US-PAT-NO: 6815190

DOCUMENT-IDENTIFIER: US 6815190 B1

TITLE: Cutinase variants

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Da |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|
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☐ 15. Document ID: US 6642044 B2

L5: Entry 15 of 20

File: USPT

Nov 4, 2003

US-PAT-NO: 6642044

DOCUMENT-IDENTIFIER: US 6642044 B2

TITLE: .alpha.-amylase mutants

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Da |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|
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☐ 16. Document ID: US 6537746 B2

L5: Entry 16 of 20

File: USPT

Mar 25, 2003

US-PAT-NO: 6537746

DOCUMENT-IDENTIFIER: US 6537746 B2

**** See image for Certificate of Correction ****TITLE: Method for creating polynucleotide and polypeptide sequences

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|--------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|--------|

☐ 17. Document ID: US 6436888 B1

L5: Entry 17 of 20

File: USPT

Aug 20, 2002

US-PAT-NO: 6436888

DOCUMENT-IDENTIFIER: US 6436888 B1

TITLE: .alpha.-amylase mutants

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|--------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|--------|

☐ 18. Document ID: US 6143708 A

L5: Entry 18 of 20

File: USPT

Nov 7, 2000

US-PAT-NO: 6143708

DOCUMENT-IDENTIFIER: US 6143708 A

TITLE: .alpha.-amylase mutants

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|--------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|--------|

☐ 19. Document ID: MX 2002011911 A1, WO 200192502 A1, AU 200160085 A, EP 1290150 A1, CN 1426463 A, JP 2003534797 W

L5: Entry 19 of 20

File: DWPI

May 1, 2003

DERWENT-ACC-NO: 2002-216714

DERWENT-WEEK: 200415

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TITLE: Variant of parent fungal cutinase for enzymatic hydrolysis of cyclic oligomers of poly(ethylene terephthalate), comprises a substitution of amino acid residues corresponding to positions of *Humicola insolens* cutinase

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|--------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|--------|

☐ 20. Document ID: US 6815190 B1, WO 200034450 A1, AU 200015038 A, BR 9915832 A, EP 1137761 A1, KR 2001081059 A, CN 1329664 A, JP 2003520016 W, MX 2001005422 A1

L5: Entry 20 of 20

File: DWPI

Nov 9, 2004

DERWENT-ACC-NO: 2000-482424

DERWENT-WEEK: 200474

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TITLE: Thermostable variant of parent fungal cutinase useful for dyeing polyester yarn or fabric, comprises substitution of amino acid residues at predetermined positions from the N-terminal amino acid

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KBAC | Draw |
|------|-------|----------|-------|--------|----------------|------|-----------|--------|------|------|
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US006797010B2

(12) **United States Patent**
Uyama et al.

(10) **Patent No.:** **US 6,797,010 B2**
(45) **Date of Patent:** **Sep. 28, 2004**

(54) **REDEPOSITION OR BACKSTAIN
INHIBITION DURING STONEWASHING
PROCESS**

(75) **Inventors:** Naoto Uyama, Chiba-prefecture (JP);
Kosaku Dalmon, Chiba-ken (JP)

(73) **Assignee:** Novozymes A/S, Bagsvaerd (DK)

(*) **Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 126 days.

(21) **Appl. No.:** 09/924,379

(22) **Filed:** Aug. 8, 2001

(65) **Prior Publication Data**

US 2002/0066144 A1 Jun. 6, 2002

Related U.S. Application Data

(63) Continuation of application No. PCT/DK01/00384, filed on
Jun. 5, 2001.

(60) Provisional application No. 60/211,004, filed on Jun. 12,
2000, provisional application No. 60/244,351, filed on Oct.
30, 2000, provisional application No. 60/253,798, filed on
Nov. 29, 2000, and provisional application No. 60/265,473,
filed on Jan. 31, 2001.

(30) **Foreign Application Priority Data**

Jun. 2, 2000 (DK) 2000 00861
Oct. 23, 2000 (DK) 2000 01577
Nov. 24, 2000 (DK) 2000 01772
Jan. 19, 2001 (DK) 2001 00100

(51) **Int. Cl.⁷** D06M 0/00

(52) **U.S. Cl.** 8/115.51; 8/137; 510/320;
510/321; 510/392; 510/393

(58) **Field of Search** 8/115.51, 137;
510/320, 321, 392, 393

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,837,010 A * 11/1998 Baeck et al. 8/137
5,912,157 A 6/1999 von der Osten

FOREIGN PATENT DOCUMENTS

| | | |
|----|-------------|---------|
| WO | WO 93/25655 | 12/1993 |
| WO | WO 94/07983 | 4/1994 |
| WO | WO 94/29426 | 12/1994 |
| WO | WO 97/04160 | 2/1997 |
| WO | WO 99/51808 | 10/1999 |

* cited by examiner

Primary Examiner—Charles Boyer

Assistant Examiner—Derrick G. Hamlin

(74) *Attorney, Agent, or Firm*—Elias J. Lambiris

(57) **ABSTRACT**

The present invention relates to the inhibition of backstain-
ing or redeposition during the stonewashing process by
applying a lipolytic enzyme, preferably cutinase, thereby
avoiding that the blue color redeposits on the fabric or
garment.

8 Claims, No Drawings

SPNT
SOS

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NEWS 9 MAR 03 MEDLINE file segment of TOXCENTER reloaded
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NEWS 11 MAR 22 Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS 12 MAR 22 PATDPASPC - New patent database available
NEWS 13 MAR 22 REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS 14 APR 04 EPFULL enhanced with additional patent information and new
fields
NEWS 15 APR 04 EMBASE - Database reloaded and enhanced

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AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005

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=> s cutinase (5a)(variant or muta? or substitut?)
5 FILES SEARCHED...
L1 242 CUTINASE (5A) (VARIANT OR MUTA? OR SUBSTITUT?)

=> s l1 and (sequence or gene)
6 FILES SEARCHED...
L2 138 L1 AND (SEQUENCE OR GENE)

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3 59 DUP REM L2 (79 DUPLICATES REMOVED)

=> d 1-10

L3 ANSWER 1 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:996321 HCAPLUS
DN 141:421730

TI ***Sequences*** of variant subtilisin enzymes (subtilases) having an
improved wash performance on egg stains
IN Minning, Stefan; Knoetzel, Juergen Carsten Franz; Sorensen, Niels Henrik;
Ness, Jon E.; Welch, Mark D.; Giver, Lorraine J.; Cherry, Joel; Vedel,
Borchert Torben; Minshull, Jeremy S.
PA Novozymes A/S, Den.; Maxigen, Inc.
SO PCT Int. Appl., 87 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|---|----------|-----------------|----------|
| PI | WO 2004099401 | A1 | 20041118 | WO 2004-DK312 | 20040506 |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, | | | |
| | RW: | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |

PRAI DK 2003-690 A 20030507
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 1
AN 2004-01674 BIOTECHDS
TI New ***cutinase*** ***variants*** of Pseudomonas mendocina
cutinase useful for facilitating the identification of trends and
enabling construction of new molecular libraries and graded
identification of mutation sites for further improvement;
bacterium enzyme production and site saturation mutagenesis for
molecular library construction
AU BOTT R R; KELLIS J T; MORRISON T B
PA GENENCOR INT INC
PI WO 2003076580 18 Sep 2003
AI WO 2003-US6908 5 Mar 2003
PRAI US 2002-403921 15 Aug 2002; US 2002-91912 5 Mar 2002
DT Patent
LA English
OS WPI: 2003-902771 [82]

L3 ANSWER 3 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 2
AN 2004-07741 BIOTECHDS
TI Avirulent Mycobacterium marinum and Mycobacterium tuberculosis bacteria,
useful as vaccines for eliciting an immune response in a patient, or for
treating and preventing mycobacterial infections;
for use in recombinant vaccine preparation against mycobacterium
infection, prevention and therapy
AU TRUCKSIS M
PA US DEPT VETERANS AFFAIRS; UNIV MARYLAND BALTIMORE
PI US 2003236393 25 Dec 2003
AI US 2003-394575 24 Mar 2003
PRAI US 2003-394575 24 Mar 2003; US 2002-366262 22 Mar 2002
DT Patent
LA English
OS WPI: 2004-070621 [07]

L3 ANSWER 4 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:892912 HCAPLUS
DN 139:359866
TI Bacillus licheniformis mutants with improved production of heterologous
proteins by reducing the amount of contaminant secreted native
polypeptide(s)
IN Andersen, Jens Tonne; Jorgensen, Steen Troels; Rasmussen, Michael
Dolbjerg; Olsen, Peter Bjarke; Clausen, Ib Groth
PA Novozymes A/S, Den.
SO PCT Int. Appl., 422 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|--|----------|-----------------|----------|
| PI | WO 2003093453 | A2 | 20031113 | WO 2003-DK198 | 20030325 |
| | WO 2003093453 | A3 | 20040513 | | |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| | EP 1497429 | A2 | 20050119 | EP 2003-709679 | 20030325 |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | |
| PRAI | DK 2002-534 | A | 20020410 | | |

L3 ANSWER 5 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:58203 HCAPLUS

DN 138:133154

TI Subtilase variants with improved stability, catalytic activity or wash performance for use in detergents

IN Fano, Tina Sejersgard; Von der Osten, Claus; Krueger, Malene Kappen; Norregaard-Madsen, Mads

PA Novozymes A/S, Den.

SO PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2003006602 | A2 | 20030123 | WO 2002-DK485 | 20020711 |
| | WO 2003006602 | A3 | 20031106 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | EP 1409659 | A2 | 20040421 | EP 2002-745188 | 20020711 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| | BR 2002010837 | A | 20040713 | BR 2002-10837 | 20020711 |
| | JP 2004537994 | T2 | 20041224 | JP 2003-512361 | 20020711 |
| | ZA 2003009666 | A | 20040803 | ZA 2003-9666 | 20031212 |
| | US 2004197894 | A1 | 20041007 | US 2003-481723 | 20031222 |
| PRAI | DK 2001-1090 | A | 20010712 | | |
| | DK 2001-90 | A | 20010712 | | |
| | WO 2002-DK485 | W | 20020711 | | |

L3 ANSWER 6 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:836519 HCAPLUS

DN 139:339298

TI Subtilase variants having an improved wash performance on egg stains

IN Fano, Tina Sejersgard; Mikkelsen, Frank

PA Den.

SO U.S. Pat. Appl. Publ., 56 pp., Cont.-in-part of U.S. Ser. No. 574417, abandoned.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|------|----------|-----------------|----------|
| PI | US 2003199077 | A1 | 20031023 | US 2000-736116 | 20001213 |
| | US 6727085 | B2 | 20040427 | | |
| PRAI | DK 1999-1792 | A | 19991215 | | |
| | US 2000-487953 | B2 | 20000119 | | |
| | DK 2000-708 | A | 20000501 | | |
| | US 2000-574417 | B2 | 20000519 | | |
| | DK 2000-1527 | A | 20001013 | | |
| | US 2000-241207P | P | 20001017 | | |

L3 ANSWER 7 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:796297 HCAPLUS

DN 139:319339

TI Subtilisins with active site loop c mutations and detergent compositions with improved wash performance

IN Hansen, Peter Kamp; Bauditz, Peter; Mikkelsen, Frank; Andersen, Kim Vilbour; Andersen, Carsten; Norregaard-Madsen, Mads

PA Novozymes A/S, Den.

SO U.S. Pat. Appl. Publ., 63 pp., Cont.-in-part of U.S. Ser. No. 574,463,
abandoned.
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 20

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 2003191038 | A1 | 20031009 | US 2002-243576 | 20020913 |
| | US 6780629 | B2 | 20040824 | | |
| | US 6605458 | B1 | 20030812 | US 1998-196281 | 19981119 |
| | US 2003180933 | A1 | 20030925 | US 2003-403105 | 20030331 |
| PRAI | DK 1997-1332 | A | 19971121 | | |
| | US 1998-196281 | A2 | 19981119 | | |
| | DK 1999-704 | A | 19990520 | | |
| | DK 1999-705 | A | 19990520 | | |
| | DK 1999-707 | A | 19990520 | | |
| | DK 1999-708 | A | 19990520 | | |
| | DK 1999-709 | A | 19990520 | | |
| | DK 1999-710 | A | 19990520 | | |
| | DK 1999-711 | A | 19990520 | | |
| | DK 1999-712 | A | 19990520 | | |
| | US 2000-573298 | A2 | 20000518 | | |
| | US 2000-573299 | A2 | 20000518 | | |
| | US 2000-573652 | B2 | 20000518 | | |
| | US 2000-573932 | A2 | 20000518 | | |
| | US 2000-574033 | A2 | 20000518 | | |
| | US 2000-574143 | A2 | 20000518 | | |
| | US 2000-574463 | B2 | 20000518 | | |
| | US 2000-574468 | A2 | 20000518 | | |

L3 ANSWER 8 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:717789 HCAPLUS

DN 139:225467

TI Methods for generating libraries using high throughput site-saturation
mutagenesis

IN Bott, Richard R.; Kellis, James T.; Morrison, Thomas B.

PA USA

SO U.S. Pat. Appl. Publ., 21 pp.
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | US 2003171543 | A1 | 20030911 | US 2002-92227 | 20020305 |
| | WO 2003076580 | A2 | 20030918 | WO 2003-US6908 | 20030305 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| PRAI | US 2002-362372P | P | 20020305 | | |
| | US 2002-91912 | A | 20020305 | | |
| | US 2002-92227 | A | 20020305 | | |
| | US 2002-403921P | P | 20020815 | | |

L3 ANSWER 9 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:717737 HCAPLUS

DN 139:242282

TI Subtilisin insertion mutants for use in detergent compositions with
improved wash performance

IN Hansen, Peter Kamp; Bauditz, Peter; Mikkelsen, Frank; Andersen, Kim
Vilbour; Andersen, Carsten; Norregaard-Madsen, Mads

PA Novozymes A/S, Den.

SO U.S. Pat. Appl. Publ., 72 pp., Cont.-in-part of U.S. Ser. No. 573,301.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 20

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| | ----- | ---- | ----- | ----- | ----- |
| PI | US 2003171235 | A1 | 20030911 | US 2002-242549 | 20020912 |
| | US 6773907 | B2 | 20040810 | | |
| | US 6605458 | B1 | 20030812 | US 1998-196281 | 19981119 |
| | US 2003180933 | A1 | 20030925 | US 2003-403105 | 20030331 |
| PRAI | DK 1997-1332 | A | 19971121 | | |
| | US 1998-196281 | A2 | 19981119 | | |
| | DK 1998-1670 | A | 19981218 | | |
| | DK 1998-1671 | A | 19981218 | | |
| | DK 1998-1672 | A | 19981218 | | |
| | DK 1998-1673 | A | 19981218 | | |
| | DK 1998-1674 | A | 19981218 | | |
| | DK 1998-1675 | A | 19981218 | | |
| | DK 1998-1677 | A | 19981218 | | |
| | DK 1999-706 | A | 19981218 | | |
| | US 1999-229720 | B1 | 19990113 | | |
| | DK 1998-1676 | A | 19990520 | | |
| | DK 1999-701 | A | 19990520 | | |
| | US 1999-466385 | A2 | 19991220 | | |
| | US 1999-466943 | A2 | 19991220 | | |
| | US 1999-468262 | A2 | 19991220 | | |
| | US 1999-468266 | A2 | 19991220 | | |
| | US 1999-468267 | A2 | 19991220 | | |
| | US 1999-468486 | A2 | 19991220 | | |
| | US 1999-468487 | A2 | 19991220 | | |
| | US 1999-468488 | A2 | 19991220 | | |
| | US 2000-573301 | A2 | 20000518 | | |

L3 ANSWER 10 OF 59 MEDLINE on STN

DUPLICATE 3

AN 2003268939 MEDLINE

DN PubMed ID: 12795380

TI Molecular evidence that the extracellular cutinase Pbc1 is required for pathogenicity of *Pyrenopeziza brassicae* on oilseed rape.

AU Li Donghui; Ashby Alison M; Johnstone Keith

CS Department of Plant Sciences, University of Cambridge, Downing Street, Cambridge CB2 3EA, UK.

SO Molecular plant-microbe interactions : MPMI, (2003 Jun) 16 (6) 545-52.

Journal code: 9107902. ISSN: 0894-0282.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200309

ED Entered STN: 20030611

Last Updated on STN: 20030928

Entered Medline: 20030926

=> d 11-20

L3 ANSWER 11 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:485779 HCAPLUS

DN 140:265145

TI Eubacteria containing RNA polymerase RpoB substitution mutants and their use in enhancing product yield

CS Novozymes A/S, Den.

SO IP.com Journal (2003), 3(4), 16 (No. IPCOM000011583D), 6 Mar 2003

CODEN: IJPOBX; ISSN: 1533-0001

PB IP.com, Inc.

DT Journal; Patent

LA English

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|----------|----------|-----------------|-------|
| | ----- | ---- | ----- | ----- | ----- |
| PI | IP 11583D | | 20030306 | | |
| PRAI | IP 2003-11583D | 20030306 | | | |

L3 ANSWER 12 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2002:293829 HCAPLUS
 DN 136:321289
 TI Subtilase variants with decreased sensitivity to trypsin inhibitors
 present in egg stains
 IN Norregaard-Madsen, Mads; Larsen, Line Bloch; Hansen, Peter Kamp
 PA Novozymes A/S, Den.
 SO PCT Int. Appl., 93 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2002031133 | A1 | 20020418 | WO 2001-DK667 | 20011012 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2424434 | AA | 20020418 | CA 2001-2424434 | 20011012 |
| | AU 2002010379 | A5 | 20020422 | AU 2002-10379 | 20011012 |
| | US 2002155575 | A1 | 20021024 | US 2001-976414 | 20011012 |
| | EP 1326966 | A1 | 20030716 | EP 2001-978206 | 20011012 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | JP 2004511228 | T2 | 20040415 | JP 2002-534502 | 20011012 |
| | US 2004248273 | A1 | 20041209 | US 2004-884325 | 20040702 |
| PRAI | DK 2000-1528 | A | 20001013 | | |
| | US 2000-241201P | P | 20001017 | | |
| | US 2001-976414 | A1 | 20011012 | | |
| | WO 2001-DK667 | W | 20011012 | | |

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 13 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2002:72246 HCAPLUS
 DN 136:130769
 TI Recombinant Bacillus pectate lyases with improved thermostability and
 their use in detergents
 IN Schuelein, Martin; Glad, Sanne O. Schroder; Andersen, Carsten; Frandsen,
 Torben Peter
 PA Novozymes A/S, Den.
 SO PCT Int. Appl., 158 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | WO 2002006442 | A2 | 20020124 | WO 2001-DK505 | 20010717 |
| | WO 2002006442 | A3 | 20020926 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2001081736 | A5 | 20020130 | AU 2001-81736 | 20010717 |
| | EP 1305408 | A2 | 20030502 | EP 2001-960180 | 20010717 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | US 2003017575 | A1 | 20030123 | US 2001-910505 | 20010719 |
| | US 6607902 | B2 | 20030819 | | |

| | | | | | |
|------|-----------------|----|----------|----------------|----------|
| | US 2003175940 | A1 | 20030918 | US 2003-403192 | 20030331 |
| | US 6808915 | B2 | 20041026 | | |
| PRAI | DK 2000-1117 | A | 20000719 | | |
| | DK 2001-705 | A | 20010504 | | |
| | DK 2001-734 | A | 20010510 | | |
| | US 2001-290724P | P | 20010514 | | |
| | WO 2001-DK505 | W | 20010717 | | |
| | US 2001-910505 | A3 | 20010719 | | |

L3 ANSWER 14 OF 59 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 2002:570980 BIOSIS

DN PREV200200570980

TI Identification of a cutinase ***gene*** in Mycobacterium marinum linked to virulence.

AU Ruley, K. M. [Reprint author]; Trucksis, M. [Reprint author]

CS University of Maryland, Baltimore, MD, USA

SO Abstracts of the General Meeting of the American Society for Microbiology, (2002) Vol. 102, pp. 58. print.
Meeting Info.: 102nd General Meeting of the American Society for Microbiology. Salt Lake City, UT, USA. May 19-23, 2002. American Society for Microbiology.
ISSN: 1060-2011.

DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LA English

ED Entered STN: 7 Nov 2002
Last Updated on STN: 7 Nov 2002

L3 ANSWER 15 OF 59 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 2002:978831 SCISEARCH

GA The Genuine Article (R) Number: 619QG

TI Studies on ferulic acid esterase activity in fungal lipases and cutinases

AU Andersen A (Reprint); Svendsen A; Vind J; Lassen S F; Hjort C; Borch K; Patkar S A

CS Novozymes AS, Dept Prot Chem, DK-2880 Bagsvaerd, Denmark

CYA Denmark

SO COLLOIDS AND SURFACES B-BIOINTERFACES, (SEP 2002) Vol. 26, No. 1-2, pp. 47-55.
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.
ISSN: 0927-7765.

DT Article; Journal

LA English

REC Reference Count: 38
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L3 ANSWER 16 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4

AN 2001:886490 HCAPLUS

DN 136:33925

TI ***Cutinase*** ***variants*** with improved thermostability and their use in textile treatments

IN Svendsen, Allan; Glad, Sanne O. S.; Fukuyama, Shiro; Matsui, Tomoko

PA Novozymes A/s, Den.

SO PCT Int. Appl., 41 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| PI | WO 2001092502 | A1 | 20011206 | WO 2001-DK350 | 20010522 |
| | W: | | | | |
| | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: | | | | |
| | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, | | | | |

BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 CA 2408406 AA 20011206 CA 2001-2408406 20010522
 EP 1290150 A1 20030312 EP 2001-933646 20010522
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 JP 2003534797 T2 20031125 JP 2002-500694 20010522
 PRAI DK 2000-861 A 20000602
 DK 2000-1577 A 20001023
 DK 2000-1772 A 20001124
 DK 2001-100 A 20010119
 WO 2001-DK350 W 20010522
 RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:798405 HCAPLUS
 DN 135:340845
 TI Enzyme variants with decreased immunogenicity having one or more D-amino
 acid substitutions and their use in cleaning and personal care
 compositions
 IN Weisgerber, David John
 PA Procter + Gamble Company, USA
 SO PCT Int. Appl., 41 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2001081556 | A2 | 20011101 | WO 2001-US13061 | 20010423 |
| | WO 2001081556 | A3 | 20020718 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 2003170846 | A1 | 20030911 | US 2001-824607 | 20010402 |
| | EP 1276871 | A2 | 20030122 | EP 2001-928770 | 20010423 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | JP 2003530881 | T2 | 20031021 | JP 2001-578627 | 20010423 |
| PRAI | US 2000-199415P | P | 20000424 | | |
| | WO 2001-US13061 | W | 20010423 | | |

L3 ANSWER 18 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:453240 HCAPLUS
 DN 135:62103
 TI Subtilase variants having an improved wash performance on egg stains
 IN Fano, Tina Sejersgaard; Mikkelsen, Frank F.
 PA Novozymes A/S, Den.
 SO PCT Int. Appl., 137 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | WO 2001044452 | A1 | 20010621 | WO 2000-DK660 | 20001201 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, | | | | |

BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 CA 2394971 AA 20010621 CA 2000-2394971 20001201
 EP 1244779 A1 20021002 EP 2000-979461 20001201
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 JP 2003516751 T2 20030520 JP 2001-545529 20001201
 PRAI DK 1999-1792 A 19991215
 DK 2000-708 A 20000501
 DK 2000-1527 A 20001013
 WO 2000-DK660 W 20001201
 RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 19 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
 DUPLICATE 5
 AN 2000-12956 BIOTECHDS
 TI Thermostable ***variant*** of parent fungal ***cutinase*** useful
 for dyeing polyester yarn or fabric, comprises substitution of amino acid
 residues at predetermined positions from the N-terminal amino acid;
 method is useful improving the functional finish of a polymer of
 ethyleneglycol and terephthalic acid
 AU Abo M; Fukuyama S; Svendsen A; Matsui T
 PA Novo-Nordisk
 LO Bagsvaerd, Denmark.
 PI WO 2000034450 15 Jun 2000
 AI WO 1999-DK678 3 Dec 1999
 PRAI US 1999-124671 16 Mar 1999; DK 1998-1604 4 Dec 1998
 DT Patent
 LA English
 OS WPI: 2000-482424 [42]

L3 ANSWER 20 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2000:457232 HCAPLUS
 DN 133:85094
 TI Protein production in Aspergillus mutant cells that produce decreased
 levels of toxin
 IN Christensen, Bjorn Eggert; Mollgaard, Henrik; Kaasgaard, Svend; Lehmbeck,
 Jan
 PA Novo Nordisk A/S, Den.
 SO PCT Int. Appl., 66 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| PI WO 2000039322 | A1 | 20000706 | WO 1999-DK726 | 19991222 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 1141371 | A1 | 20011010 | EP 1999-960956 | 19991222 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2002533133 | T2 | 20021008 | JP 2000-591212 | 19991222 |
| US 6383781 | B1 | 20020507 | US 1999-472364 | 19991223 |
| US 2002197682 | A1 | 20021226 | US 2002-99704 | 20020315 |
| US 6828137 | B2 | 20041207 | | |
| PRAI DK 1998-1726 | A | 19981223 | | |
| DK 1999-745 | A | 19990527 | | |
| US 1999-117396P | P | 19990127 | | |
| US 1999-139593P | P | 19990617 | | |
| WO 1999-DK726 | W | 19991222 | | |
| US 1999-472364 | A3 | 19991223 | | |

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 21-30

L3 ANSWER 21 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:441898 HCAPLUS

DN 133:86106

TI Variants of I-S1 and I-S2 sub-groups of subtilisin having an additional amino acid residue in the active site loop region showing greatly improved wash performance

IN Andersen, Vilbourn Kim; Mikkelsen, Frank; Hansen, Kamp Peter; Andersen, Carsten; Norregaard-Madsen, Mads

PA Novo Nordisk A/S, Den.

SO PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 20

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2000037599 | A1 | 20000629 | WO 1999-DK714 | 19991220 |
| | W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2355580 | AA | 20000629 | CA 1999-2355580 | 19991220 |
| | BR 9916351 | A | 20010918 | BR 1999-16351 | 19991220 |
| | EP 1141205 | A1 | 20011010 | EP 1999-960944 | 19991220 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | JP 2002533066 | T2 | 20021008 | JP 2000-589656 | 19991220 |
| | AU 771078 | B2 | 20040311 | AU 2000-17728 | 19991220 |
| PRAI | DK 1998-1674 | A | 19981218 | | |
| | WO 1999-DK714 | W | 19991220 | | |

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 22 OF 59 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN DUPLICATE 6

AN 2000349356 EMBASE

TI Substitutions of surface amino acid residues of cutinase probed by aqueous two-phase partitioning.

AU Berggren K.; Egmond M.R.; Tjerneld F.

CS F. Tjerneld, Department of Biochemistry, Lund University, P.O. Box 124, S-221 00 Lund, Sweden. folke.tjerneld@biokem.lu.se

SO Biochimica et Biophysica Acta - Protein Structure and Molecular Enzymology, (29 Sep 2000) Vol. 1481, No. 2, pp. 317-327.

Refs: 31

ISSN: 0167-4838 CODEN: BBAEDZ

PUI S 0167-4838(00)00175-8

CY Netherlands

DT Journal; Article

FS 029 Clinical Biochemistry

LA English

SL English

ED Entered STN: 20001113

Last Updated on STN: 20001113

L3 ANSWER 23 OF 59 MEDLINE on STN

DUPLICATE 7

AN 2000273759 MEDLINE

DN PubMed ID: 10812184

TI Genetic engineering of the Fusarium solani pisi lipase cutinase for enhanced partitioning in PEG-phosphate aqueous two-phase systems.

AU Bandmann N; Collet E; Leijen J; Uhlen M; Veide A; Nygren P A

CS Department of Biotechnology, Royal Institute of Technology (KTH), Teknikringen 30, SE-100 44, Stockholm, Sweden.

SO Journal of biotechnology, (2000 Apr 28) 79 (2) 161-72.
 Journal code: 8411927. ISSN: 0168-1656.
 CY Netherlands
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals
 EM 200007
 ED Entered STN: 20000720
 Last Updated on STN: 20000720
 Entered Medline: 20000712

L3 ANSWER 24 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:189188 HCAPLUS
 DN 130:219878
 TI Protease variants and compositions for use in detergents
 IN Hansen, Peter Kamp; Bauditz, Peter; Mikkelsen, Frank; Andersen, Kim
 Vilbour
 PA Novo Nordisk A/S, Den.
 SO PCT Int. Appl., 70 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9911770 | A1 | 19990311 | WO 1998-DK361 | 19980819 |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2301785 | AA | 19990311 | CA 1998-2301785 | 19980819 |
| | AU 9890618 | A1 | 19990322 | AU 1998-90618 | 19980819 |
| | EP 1007646 | A1 | 20000614 | EP 1998-942501 | 19980819 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI | | | | |
| | BR 9811396 | A | 20000822 | BR 1998-11396 | 19980819 |
| | JP 2001514847 | T2 | 20010918 | JP 2000-508781 | 19980819 |
| | MX 200001890 | A | 20001109 | MX 2000-1890 | 20000223 |
| PRAI | DK 1997-988 | A | 19970829 | | |
| | WO 1998-DK361 | W | 19980819 | | |

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 25 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:189187 HCAPLUS
 DN 130:206698
 TI Protease variants and compositions for use in detergents
 IN Hansen, Peter Kamp; Bauditz, Peter; Mikkelsen, Frank; Andersen, Kim
 Vilbour
 PA Novo Nordisk A/S, Den.
 SO PCT Int. Appl., 69 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | WO 9911769 | A1 | 19990311 | WO 1998-DK360 | 19980819 |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2301767 | AA | 19990311 | CA 1998-2301767 | 19980819 |
| | AU 9890617 | A1 | 19990322 | AU 1998-90617 | 19980819 |

EP 1012251 A1 20000628 EP 1998-942500 19980819
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI
 BR 9811412 A 20000822 BR 1998-11412 19980819
 JP 2001514846 T2 20010918 JP 2000-508780 19980819
 MX 200001889 A 20001109 MX 2000-1889 20000223
 US 6558938 B1 20030506 US 2000-515150 20000229
 PRAI DK 1997-987 A 19970829
 WO 1998-DK360 W 19980819
 RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 26 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:189186 HCAPLUS
 DN 130:206697
 TI Protease variants and compositions for use in detergents
 IN Hansen, Peter Kamp; Bauditz, Peter; Mitkkelsen, Frank; Andersen, Kim
 Vilbour
 PA Novo Nordisk A/S, Den.
 SO PCT Int. Appl., 67 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|--|----------|-----------------|----------|
| WO 9911768 | A1 | 19990311 | WO 1998-DK359 | 19980819 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2301851 | AA | 19990311 | CA 1998-2301851 | 19980819 |
| AU 9887981 | A1 | 19990322 | AU 1998-87981 | 19980819 |
| EP 1009815 | A1 | 20000621 | EP 1998-939486 | 19980819 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI | | | | |
| JP 2002515221 | T2 | 20020528 | JP 2000-508779 | 19980819 |
| MX 200001888 | A | 20001110 | MX 2000-1888 | 20000223 |
| US 6555355 | B1 | 20030429 | US 2000-512251 | 20000224 |
| US 2003176304 | A1 | 20030918 | US 2003-336324 | 20030103 |
| PRAI DK 1997-986 | A | 19970829 | | |
| WO 1998-DK359 | W | 19980819 | | |
| US 2000-512251 | A1 | 20000224 | | |
| RE.CNT 3 | THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT | | | |

L3 ANSWER 27 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:48790 HCAPLUS
 DN 130:106943
 TI Variants of Humicola family 6 endo-1,4-.beta.-glucanases CelA and CelB and their use in cleaning compositions
 IN Lund, Henrik; Nielsen, Jack Bech; Schulein, Martin; Damgaard, Bo; Andersen, Kim Vilbour
 PA Novo Nordisk A/S, Den.
 SO PCT Int. Appl., 271 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9901544 | A1 | 19990114 | WO 1998-DK299 | 19980702 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, | | | | |

CM, GA, GN, ML, MR, NE, SN, TD, TG
 AU 9879088 A1 19990125 AU 1998-79088 19980702
 EP 1002061 A1 20000524 EP 1998-929249 19980702
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI
 PRAI DK 1997-813 A 19970704
 WO 1998-DK299 W 19980702
 RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 28 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:808055 HCAPLUS
 DN 132:132883
 TI Random mutagenesis libraries: optimization and simplification by PCR
 AU Xu, Hao; Petersen, Evamaria I.; Petersen, Steffen B.; El-Gewely, M. Raafat
 CS University of Tromso, Tromso, 9037, Norway
 SO BioTechniques (1999), 27(6), 1102, 1104, 1106, 1108
 CODEN: BTNQDO; ISSN: 0736-6205
 PB Eaton Publishing Co.
 DT Journal
 LA English
 RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 29 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1998:324873 HCAPLUS
 DN 129:2165
 TI Subtilase variants with modified autoproteolytic stability for use in
 detergents
 IN Von der Osten, Claus; Halkier, Torben; Andersen, Carsten; Bauditz, Peter;
 Hansen, Peter Kamp
 PA Novo Nordisk A/S, Den.
 SO PCT Int. Appl., 100 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9820116 | A1 | 19980514 | WO 1997-DK500 | 19971104 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| CA 2270180 | AA | 19980514 | CA 1997-2270180 | 19971104 |
| AU 9747731 | A1 | 19980529 | AU 1997-47731 | 19971104 |
| EP 932667 | A1 | 19990804 | EP 1997-910275 | 19971104 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI | | | | |
| CN 1235637 | A | 19991117 | CN 1997-199372 | 19971104 |
| CN 1136310 | B | 20040128 | | |
| BR 9712878 | A | 20000201 | BR 1997-12878 | 19971104 |
| JP 2001503269 | T2 | 20010313 | JP 1998-520961 | 19971104 |
| US 6300116 | B1 | 20011009 | US 1997-963851 | 19971104 |
| KR 2000053071 | A | 20000825 | KR 1999-703986 | 19990504 |
| US 2002102702 | A1 | 20020801 | US 2001-948080 | 20010906 |
| PRAI DK 1996-1235 | A | 19961104 | | |
| DK 1996-1240 | A | 19961105 | | |
| DK 1997-284 | A | 19970314 | | |
| US 1997-963851 | A3 | 19971104 | | |
| WO 1997-DK500 | W | 19971104 | | |

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 30 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1998:324872 HCAPLUS
 DN 129:2164
 TI Subtilase variants at amino acid positions Tyr-167 and Arg-170 for
 improved was performance in detergents

IN Hansen, Peter Kamp; Von der Osten, Claus; Bauditz, Peter
PA Novo Nordisk A/S, Den.; Hansen, Peter Kamp; Von der Osten, Claus; Bauditz, Peter
SO PCT Int. Appl., 81 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9820115 | A1 | 19980514 | WO 1997-DK493 | 19971031 |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2270593 | AA | 19980514 | CA 1997-2270593 | 19971031 |
| | AU 9747726 | A1 | 19980529 | AU 1997-47726 | 19971031 |
| | EP 948610 | A1 | 19991013 | EP 1997-910270 | 19971031 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI | | | | |
| | CN 1235638 | A | 19991117 | CN 1997-199434 | 19971031 |
| | BR 9712473 | A | 19991221 | BR 1997-12473 | 19971031 |
| | JP 2002510191 | T2 | 20020402 | JP 1998-520957 | 19971031 |
| | MX 9904108 | A | 20000228 | MX 1999-4108 | 19990503 |
| | KR 2000053060 | A | 20000825 | KR 1999-703970 | 19990504 |
| PRAI | DK 1996-1236 | A | 19961104 | | |
| | DK 1997-784 | A | 19970702 | | |
| | US 1997-52482P | P | 19970714 | | |
| | DK 1997-1198 | A | 19971020 | | |
| | WO 1997-DK493 | W | 19971031 | | |

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 31-40

L3 ANSWER 31 OF 59 MEDLINE on STN DUPLICATE 8
AN 1998353360 MEDLINE
DN PubMed ID: 9687432
TI Expression and secretion of defined ***cutinase*** ***variants***
by Aspergillus awamori.
AU van Gemenen I A; Beijersbergen A; van den Hondel C A; Verrips C T
CS Department of Biotechnology, Unilever Research, 3133 AT Vlaardingen, The Netherlands.. ingeborg-van.gemenen@unilever.com
SO Applied and environmental microbiology, (1998 Aug) 64 (8) 2794-9.
Journal code: 7605801. ISSN: 0099-2240.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199809
ED Entered STN: 19981006
Last Updated on STN: 19981006
Entered Medline: 19980924

L3 ANSWER 32 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
AN 1999-06415 BIOTECHDS
TI A second polycaprolactone-depolymerase from Fusarium, a lipase distinct
from cutinase;
enzyme production by a mutant fungus for biodegradable plastic
degradation
AU Murphy C A; Cameron J A; Huang S J; *Vinopal R T
CS Univ.Connecticut
LO Department of Molecular and Cell Biology, University of Connecticut, 75
North Eagleville Road, U-44, Storrs, CT 06269-3044, USA.
Email: vinopal@uconnvm.uconn.edu
SO Appl.Microbiol.Biotechnol.; (1998) 50, 6, 692-96
CODEN: EJABDD ISSN: 0175-7598

DT Journal
LA English

L3 ANSWER 33 OF 59 MEDLINE on STN DUPLICATE 9
AN 1998096810 MEDLINE
DN PubMed ID: 9435084
TI Impaired secretion of a hydrophobic cutinase by *Saccharomyces cerevisiae* correlates with an increased association with immunoglobulin heavy-chain binding protein (BiP).
AU Sagt C M; Muller W H; Boonstra J; Verkleij A J; Verrips C T
CS Department of Molecular Cell Biology, Utrecht University, The Netherlands.. cees@emsaserv.biol.ruu.nl
SO Applied and environmental microbiology, (1998 Jan) 64 (1) 316-24.
Journal code: 7605801. ISSN: 0099-2240.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199803
ED Entered STN: 19980319
Last Updated on STN: 19980319
Entered Medline: 19980310

L3 ANSWER 34 OF 59 MEDLINE on STN DUPLICATE 10
AN 1998177152 MEDLINE
DN PubMed ID: 9508797
TI A cutinase-encoding ***gene*** from *Phytophthora capsici* isolated by differential-display RT-PCR.
AU Munoz C I; Bailey A M
CS Departamento de Ingenieria Genetica de Plantas, CINVESTAV-IPN, Unidad Irapuato, Apartado Postal 629, Irapuato, 36500 Gto, Mexico,.
SO Current genetics, (1998 Mar) 33 (3) 225-30.
Journal code: 8004904. ISSN: 0172-8083.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
OS GENBANK-X89452
EM 199805
ED Entered STN: 19980529
Last Updated on STN: 19980529
Entered Medline: 19980519

L3 ANSWER 35 OF 59 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 11
AN 1998405880 EMBASE
TI Protein engineering the surface of enzymes.
AU Petersen S.B.; Jonson P.H.; Fojan P.; Petersen E.I.; Neves Petersen M.T.; Hansen S.; Ishak R.J.; Hough E.
CS S.B. Petersen, Biostructure/Protein Engin. Lab., Department of Biotechnology, University of Aalborg, Sohngaardsholmsvej 57, DK-9000 Aalborg, Denmark. Steffen.Peteresen@civil.auc.dk
SO Journal of Biotechnology, (1998) Vol. 66, No. 1, pp. 11-26.
Refs: 25
ISSN: 0168-1656 CODEN: JBITD4
PUI S 0168-1656(98)00153-9
CY Netherlands
DT Journal; Conference Article
FS 029 Clinical Biochemistry
037 Drug Literature Index
004 Microbiology
LA English
SL English
ED Entered STN: 19981217
Last Updated on STN: 19981217

L3 ANSWER 36 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN DUPLICATE 12
AN 1997-05736 BIOTECHDS
TI Preparing polypeptide variants with improved functional properties; lipase enzyme engineering or protein engineering method involving

gene shuffling

AU Okkels J S
 PA Novo-Nordisk
 LO Bagsvaerd, Denmark.
 PI WO 9707206 27 Feb 1997
 AI WO 1996-DK344 12 Aug 1996
 PRAI DK 1995-1047 20 Sep 1995; DK 1995-907 11 Aug 1995
 DT Patent
 LA English
 OS WPI: 1997-165290 [15]

L3 ANSWER 37 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1997:259788 HCAPLUS
 DN 126:234419
 TI Generation of variant polypeptides by in vivo recombination between linear DNAs
 IN Okkels, Jens Sigurd
 PA Novo Nordisk A/s, Den.; Okkels, Jens Sigurd
 SO PCT Int. Appl., 67 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9707205 | A1 | 19970227 | WO 1996-DK343 | 19960812 |
| | W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA | | | | |
| | AU 9666553 | A1 | 19970312 | AU 1996-66553 | 19960812 |
| | EP 843725 | A1 | 19980527 | EP 1996-926325 | 19960812 |
| | EP 843725 | B1 | 20020417 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI | | | | |
| | CN 1192782 | A | 19980909 | CN 1996-196213 | 19960812 |
| | CN 1128875 | B | 20031126 | | |
| | JP 11510700 | T2 | 19990921 | JP 1996-508841 | 19960812 |
| | AT 216427 | E | 20020515 | AT 1996-926325 | 19960812 |
| | EP 1213350 | A2 | 20020612 | EP 2002-2150 | 19960812 |
| | EP 1213350 | A3 | 20021204 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI | | | | |
| | US 2003148441 | A1 | 20030807 | US 2002-188594 | 20020703 |
| | US 2005048649 | A1 | 20050303 | US 2004-738669 | 20041102 |
| PRAI | DK 1995-907 | A | 19950811 | | |
| | DK 1995-1047 | A | 19950920 | | |
| | EP 1996-926325 | A3 | 19960812 | | |
| | WO 1996-DK343 | W | 19960812 | | |
| | US 1998-8363 | B1 | 19980116 | | |
| | US 2002-188594 | A1 | 20020703 | | |

L3 ANSWER 38 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1997:240584 HCAPLUS
 DN 126:222277
 TI Recombinant lipases with C- and/or N-terminal extensions and their use in detergents
 IN Fuglsang, Claus Crone; Okkels, Jens Sigurd; Petersen, Dorte Aaby; Patkar, Shamkant Anant; Thellersen, Marianne; Vind, Jesper; Halkier, Torben; Joergensen, Steen Troels; et al.
 PA Novo Nordisk A/s, Den.; Fuglsang, Claus Crone; Okkels, Jens Sigurd; Petersen, Dorte Aaby; Patkar, Shamkant Anant; Thellersen, Marianne; Vind, Jesper; Halkier, Torben
 SO PCT Int. Appl., 191 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------------|------|------|-----------------|------|
| | | | | | |

| | | | | | |
|------|---|----|----------|----------------|----------|
| PI | WO 9704079 | A1 | 19970206 | WO 1996-DK322 | 19960712 |
| | W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG | | | | |
| | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA | | | | |
| | AU 9664141 | A1 | 19970218 | AU 1996-64141 | 19960712 |
| | EP 839186 | A1 | 19980506 | EP 1996-923878 | 19960712 |
| | EP 839186 | B1 | 20041110 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI | | | | |
| | CN 1193346 | A | 19980916 | CN 1996-196371 | 19960712 |
| | JP 2001526523 | T2 | 20011218 | JP 1997-506185 | 19960712 |
| | AT 282087 | E | 20041115 | AT 1996-923878 | 19960712 |
| | US 6495357 | B1 | 20021217 | US 1998-7288 | 19980114 |
| | US 2003199069 | A1 | 20031023 | US 2002-232544 | 20020830 |
| PRAI | DK 1995-832 | A | 19950714 | | |
| | DK 1995-1013 | A | 19950913 | | |
| | DK 1995-1096 | A | 19950929 | | |
| | DK 1995-1306 | A | 19951121 | | |
| | US 1996-11634P | P | 19960214 | | |
| | DK 1996-372 | A | 19960401 | | |
| | US 1996-20461P | P | 19960507 | | |
| | DK 1995-905 | A | 19950811 | | |
| | US 1996-11627P | P | 19960214 | | |
| | DK 1996-374 | A | 19960401 | | |
| | US 1996-16754P | P | 19960507 | | |
| | WO 1996-DK322 | W | 19960712 | | |
| | WO 1996-DK341 | A2 | 19960812 | | |
| | US 1998-7288 | A1 | 19980114 | | |

L3 ANSWER 39 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:220628 HCAPLUS

DN 126:208956

TI Recombinant lipases with C- and/or N-terminal extensions and their use in detergents

IN Fuglsang, Claus Crone; Okkels, Jens Sigurd; Pertersen, Dorte Aaby; Patkar, Shamkant Anant; Thellersen, Marianne; Vind, Jesper; Halkier, Torben; Joergensen, Steen Troels; et al.

PA Novo Nordisk A/s, Den.; Fuglsang, Claus Crone; Okkels, Jens Sigurd; Pertersen, Dorte Aaby; Patkar, Shamkant Anant; Thellersen, Marianne; Vind, Jesper; Halkier, Torben

SO PCT Int. Appl., 197 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9704078 | A1 | 19970206 | WO 1996-DK321 | 19960712 |
| | W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG | | | | |
| | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA | | | | |
| | AU 9664140 | A1 | 19970218 | AU 1996-64140 | 19960712 |
| | CN 1193346 | A | 19980916 | CN 1996-196371 | 19960712 |
| PRAI | DK 1995-832 | A | 19950714 | | |
| | DK 1995-1013 | A | 19950913 | | |
| | DK 1995-1096 | A | 19950929 | | |
| | DK 1995-1306 | A | 19951121 | | |
| | US 1996-11634P | P | 19960214 | | |
| | DK 1996-372 | A | 19960401 | | |
| | US 1996-20461P | P | 19960507 | | |
| | WO 1996-DK321 | W | 19960712 | | |

L3 ANSWER 40 OF 59 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1998-008848 [01] WPIDS

DNC C1998-003174

TI Detergent composition for cleaning hard surfaces and laundry, etc. -

comprises specific lipolytic enzyme and second lipolytic enzyme giving improved whiteness maintenance to fabrics.

DC D16 D25

IN BAECK, A C; KASTURI, C

PA (PROC) PROCTER & GAMBLE CO

CYC 70

PI WO 9743376 A1 19971120 (199801)* EN 74 C11D003-386

RW: AT BE CH DE DK EA ES FI FR GB GR IE IT KE LS LU MC MW NL OA PT SD
SE SZ UG

W: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS
JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT
RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN

AU 9658617 A 19971205 (199814) C11D003-386

BR 9612611 A 19990720 (199940) C11D003-386

CN 1224454 A 19990728 (199948) C11D003-386

JP 11511778 W 19991012 (199954) 70 C11D003-386

MX 9809589 A1 19990301 (200051) C11D003-386

ADT WO 9743376 A1 WO 1996-US7087 19960515; AU 9658617 A AU 1996-58617
19960515, WO 1996-US7087 19960515; BR 9612611 A BR 1996-12611 19960515, WO
1996-US7087 19960515; CN 1224454 A CN 1996-180379 19960515, WO 1996-US7087
19960515; JP 11511778 W WO 1996-US7087 19960515, JP 1997-540823 19960515;
MX 9809589 A1 MX 1998-9589 19981116

FDT AU 9658617 A Based on WO 9743376; BR 9612611 A Based on WO 9743376; JP
11511778 W Based on WO 9743376

PRAI WO 1996-US7087 19960515

IC ICM C11D003-386

ICS C11D007-42

=> d 39, 40 ab

L3 ANSWER 39 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AB The invention relates to a modified enzyme with lipolytic activity recovered from a filamentous fungi or a bacteria having one or more peptide addns. at the N-terminal and/or the C-terminal ends in comparison to the parent enzyme. The peptide addns. significantly improve the washing performance of the lipase. Further, the invention relates to a DNA ***sequence*** encoding said modified enzyme, a vector comprising said DNA ***sequence***, a host cell harboring said DNA ***sequence*** or said vector, and a process for producing said modified enzyme with lipolytic activity. The lipase variants are useful in detergent compns. Numerous lipase variants contg. substitution mutations and C- and/or N-terminal addns. were prepd. with recombinant *Aspergillus oryzae* or with *Escherichia coli*. The addn. of SPIRR to the N-terminus of *Humicola lanuginosa* lipase increased the wash performance relative to the parent enzyme twofold.

L3 ANSWER 40 OF 59 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

AB WO 9743376 A UPAB: 19980107

Detergent composition (I) comprises (a) a specific lipolytic enzyme (E1) which provides improved whiteness maintenance compared with 'LIPOLASE' (RTM) enzyme at equal hydrolytic activity (same LU/litre wash solution), and (b) at least a second lipolytic enzyme (E2).

(E1) is preferably a variant of a native enzyme produced by *Humicola lanuginosa* or *Thermomyces lanuginosus*, or by cloning and expressing the ***gene*** responsible for said variant into a host organism. Variants of *H. lanuginosa* are strains DSM 4106 and D96L. (E2) is a lipase, cutinase, esterase and/or phospholipase, especially (i) a lipase showing positive immunological cross-reaction with the antibody of the lipase produced by *Pseudomonas fluorescent* IAM 1057, (ii) wild type lipase producible by *P. pseudoalcaligenes* and its M21X and M21L variants or (iii) native lipase derived from *H. lanuginosa* DSM 4106 or a ***cutinase*** or ***cutinase*** ***variant***.

USE - (I) is used for hard surface cleaning, hand or machine dishwashing and hand or machine laundry cleaning.

ADVANTAGE - (I) improves fabric whiteness and reduces spotting and filming and/or redeposition on hard surfaces.

Dwg.0/0

=> d 41-50

L3 ANSWER 41 OF 59 MEDLINE on STN DUPLICATE 13
 AN 97155571 MEDLINE
 DN PubMed ID: 9002270
 TI Cutinase A of Botrytis cinerea is expressed, but not essential, during penetration of gerbera and tomato.
 AU van Kan J A; van't Klooster J W; Wagemakers C A; Dees D C; van der Vlugt-Bergmans C J
 CS Department of Phytopathology, Wageningen Agricultural University, The Netherlands.. jan.vankan@medew.fyto.wau.nl
 SO Molecular plant-microbe interactions : MPMI, (1997 Jan) 10 (1) 30-8.
 Journal code: 9107902. ISSN: 0894-0282.
 CY United States
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals
 OS GENBANK-Z69263
 EM 199702
 ED Entered STN: 19970306
 Last Updated on STN: 19990129
 Entered Medline: 19970226

L3 ANSWER 42 OF 59 MEDLINE on STN DUPLICATE 14
 AN 96156790 MEDLINE
 DN PubMed ID: 8593048
 TI Fusarium polycaprolactone depolymerase is cutinase.
 AU Murphy C A; Cameron J A; Huang S J; Vinopal R T
 CS Department of Molecular and Cell Biology, University of Connecticut, Storrs 06269-3044, USA.
 SO Applied and environmental microbiology, (1996 Feb) 62 (2) 456-60. .
 Journal code: 7605801. ISSN: 0099-2240.
 CY United States
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals
 EM 199604
 ED Entered STN: 19960418
 Last Updated on STN: 19960418
 Entered Medline: 19960401

L3 ANSWER 43 OF 59 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN
 AN 97:35499 SCISEARCH
 GA The Genuine Article (R) Number: WA261
 TI Dynamics of Fusarium solani cutinase investigated through structural comparison among different crystal forms of its variants
 AU Longhi S; Nicolas A; Creveld L; Egmond M; Verrips C T; deVlieg J; Martinez C; Cambillau C (Reprint)
 CS CNRS, UPR9039, LAB CRISTALLOG & CRISTALLISAT MACROMOL BIOL, IFR1, 31 CHEMIN JOSEPH AIGUIER, F-13402 MARSEILLE 20, FRANCE (Reprint); CNRS, UPR9039, LAB CRISTALLOG & CRISTALLISAT MACROMOL BIOL, IFR1, F-13402 MARSEILLE 20, FRANCE; UNILEVER RES LABS VLAARDINGEN, NL-3130 AC VLAARDINGEN, NETHERLANDS
 CYA FRANCE; NETHERLANDS
 SO PROTEINS-STRUCTURE FUNCTION AND GENETICS, (DEC 1996) Vol. 26, No. 4, pp. 442-458.
 Publisher: WILEY-LISS, DIV JOHN WILEY & SONS INC 605 THIRD AVE, NEW YORK, NY 10158-0012.
 ISSN: 0887-3585.
 DT Article; Journal
 FS LIFE
 LA English
 REC Reference Count: 62
 ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L3 ANSWER 44 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1995:990655 HCAPLUS
 DN 124:24865
 TI A method of preparing a variant of a lipolytic enzyme
 IN Svendsen, Allan; Clausen, Ib Groth; Okkels, Jens Sigurd; Thellersen, Marianne

PA Novo Nordisk A/S, Den.
SO PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9522615 | A1 | 19950824 | WO 1995-DK79 | 19950222 |
| | W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UG | | | | |
| | RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2183431 | AA | 19950824 | CA 1995-2183431 | 19950222 |
| | AU 9518067 | A1 | 19950904 | AU 1995-18067 | 19950222 |
| | EP 746618 | A1 | 19961211 | EP 1995-909666 | 19950222 |
| | EP 746618 | B1 | 20020821 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE | | | | |
| | CN 1147836 | A | 19970416 | CN 1995-192164 | 19950222 |
| | CN 1077598 | B | 20020109 | | |
| | JP 09509058 | T2 | 19970916 | JP 1995-521525 | 19950222 |
| | JP 3553958 | B2 | 20040811 | | |
| | BR 9506861 | A | 19970923 | BR 1995-6861 | 19950222 |
| | AT 222604 | E | 20020915 | AT 1995-909666 | 19950222 |
| | FI 9603266 | A | 19960821 | FI 1996-3266 | 19960821 |
| | US 5976855 | A | 19991102 | US 1996-701339 | 19960822 |
| PRAI | DK 1994-217 | A | 19940222 | | |
| | WO 1995-DK79 | W | 19950222 | | |

L3 ANSWER 45 OF 59 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on
STN DUPLICATE 15

AN 95:766763 SCISEARCH

GA The Genuine Article (R) Number: TC463

TI ROLE OF CUTINASE IN THE INVASION OF PLANTS

AU KOLLER W (Reprint); YAO C L; TRIAL F; PARKER D M

CS CORNELL UNIV, NEW YORK STATE AGR EXPT STN, DEPT PLANT PATHOL, GENEVA, NY, 14456 (Reprint)

CYA USA

SO CANADIAN JOURNAL OF BOTANY-REVUE CANADIENNE DE BOTANIQUE, (1995) Vol. 73, Supp. 1, pp. S1109-S1118.
ISSN: 0008-4026.

DT Article; Journal

FS AGRI

LA ENGLISH

REC Reference Count: 76

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L3 ANSWER 46 OF 59 LIFESCI COPYRIGHT 2005 CSA on STN

AN 96:31199 LIFESCI

TI Role of cutinase in the invasion of plants

AU Koeller, W.; Yao, Chenglin; Trial, F.; Parker, D.M.

CS Dep. Plant Pathol., Cornell Univ., New York State Agric. Exp. Stn., Geneva, NY 14456, USA

SO CAN. J. BOT./REV. CAN. BOT., (1995) vol. 73, no. Supplement 1, pp. S1109-S1118.

Meeting Info.: 5. International Mycological Congress. Vancouver, BC (Canada). 14-21 Aug 1994.

DT Journal

TC Conference; General Review

FS K; A

LA English

SL English; French

L3 ANSWER 47 OF 59 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on
STN

AN 95:319244 SCISEARCH

GA The Genuine Article (R) Number: QW450

TI DIVERSITY OF CUTINASES FROM PLANT-PATHOGENIC FUNGI - DIFFERENT CUTINASES

ARE EXPRESSED DURING SAPROPHYTIC AND PATHOGENIC STAGES OF
 ALTERNARIA-BRASSICICOLA
 AU YAO C L; KOLLER W (Reprint)
 CS CORNELL UNIV, NEW YORK STATE AGR EXPT STN, DEPT PLANT PATHOL, GENEVA, NY,
 14456 (Reprint); CORNELL UNIV, NEW YORK STATE AGR EXPT STN, DEPT PLANT
 PATHOL, GENEVA, NY, 14456
 CYA USA
 SO MOLECULAR PLANT-MICROBE INTERACTIONS, (JAN/FEB 1995) Vol. 8, No. 1, pp.
 122-130.
 ISSN: 0894-0282.
 DT Article; Journal
 FS LIFE; AGRI
 LA ENGLISH
 REC Reference Count: 46
 ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L3 ANSWER 48 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
 AN 1996-01811 BIOTECHDS
 TI Secretion of wild-type and ***mutant*** ***cutinases*** by
 Saccharomyces cerevisiae;
 Fusarium solani pisi enzyme engineering for improved activity and
 protein secretion (conference abstract)
 AU Sagt C M J; Verrips C T
 CS Univ.Utrecht; Unilever
 LO Utrecht University, 3584 CH Utrecht, The Netherlands.
 SO Yeast; (1995) 11, Spec.Iss., S594
 CODEN: YESTE3 ISSN: 0749-503X
 17th International Conference on Yeast Genetics and Molecular Biology,
 Lisbon, Portugal, 10-16 June, 1995.
 DT Journal
 LA English

L3 ANSWER 49 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
 DUPLICATE 16
 AN 1994-12510 BIOTECHDS
 TI Eukaryotic ***cutinase*** ***variant*** with improved lipolytic
 activity;
 with modified amino acid structure to improve compatibility with
 anionic surfactant
 PA Unilever
 PI WO 9414964 7 Jul 1994
 AI WO 1993-EP3551 9 Dec 1993
 PRAI EP 1992-204079 23 Dec 1992
 DT Patent
 LA English
 OS WPI: 1994-234699 [28]

L3 ANSWER 50 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
 DUPLICATE 17
 AN 1994-11303 BIOTECHDS
 TI Eukaryotic ***cutinase*** ***variant*** with increased lipolytic
 activity;
 enzyme engineering and expression of plasmid pUR7220 in Saccharomyces,
 Aspergillus, Hansenula or Kluyveromyces sp. for increased
 hydrophobicity for use in surfactant composition
 PA Unilever
 PI WO 9414963 7 Jul 1994
 AI WO 1993-EP3550 9 Dec 1993
 PRAI NL 1992-204025 18 Dec 1992
 DT Patent
 LA English
 OS WPI: 1994-234698 [28]

=> d 51-59

L3 ANSWER 51 OF 59 MEDLINE on STN DUPLICATE 18
 AN 94348283 MEDLINE
 DN PubMed ID: 8069105
 TI Cutinase ***gene*** disruption in Fusarium solani f sp pisi decreases
 its virulence on pea.

AU Rogers L M; Flaishman M A; Kolattukudy P E
CS Ohio State Biotechnology Center, Ohio State University, Columbus
43210-1002.
SO Plant cell, (1994 Jul) 6 (7) 935-45.
Journal code: 9208688. ISSN: 1040-4651.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199409
ED Entered STN: 19941006
Last Updated on STN: 19941006
Entered Medline: 19940928

L3 ANSWER 52 OF 59 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on
STN DUPLICATE 19

AN 95:52833 SCISEARCH
GA The Genuine Article (R) Number: QA593
TI CUTINASE OF NECTRIA-HAEMATOCOCCA (FUSARIUM-SOLANI F SP PISI) IS NOT
REQUIRED FOR FUNGAL VIRULENCE OR ORGAN SPECIFICITY ON PEA
AU STAHL D J; THEUERKAUF A; HEITEFUSS R; SCHAFER W (Reprint)
CS INST GENBIOL FORSCH BERLIN GMBH, IHNESTR 63, D-14195 BERLIN, GERMANY
(Reprint); INST GENBIOL FORSCH BERLIN GMBH, D-14195 BERLIN, GERMANY; UNIV
GOTTINGEN, INST PFLANZENPATHOL & PFLANZENSCHUTZ, D-37077 GOTTINGEN,
GERMANY
CYA GERMANY
SO MOLECULAR PLANT-MICROBE INTERACTIONS, (NOV/DEC 1994) Vol. 7, No. 6, pp.
713-725.
ISSN: 0894-0282.
DT Article; Journal
FS LIFE; AGRI
LA ENGLISH
REC Reference Count: 40
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L3 ANSWER 53 OF 59 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on
STN

AN 94:353311 SCISEARCH
GA The Genuine Article (R) Number: NN881
TI VARIATION IN CUTINASE, ESTERASE, AND CHROMOSOME PATTERNS IN NOP MUTANTS OF
A TRANSFORMED PATHOGENIC STRAIN OF PHYTOPHTHORA-CAPSICI
AU MENA G L (Reprint); MUNOZ C I; GUZMAN P A; BAILEY A M
CS CINVESTAV IPN, DEPT INGN GENET PLANTAS, APARTADO POSTAL 629, IRAPUATO
36500, GUANAJUATO, MEXICO (Reprint)
CYA MEXICO
SO PHYTOPATHOLOGY, (MAY 1994) Vol. 84, No. 5, pp. 502-508.
ISSN: 0031-949X.
DT Article; Journal
FS AGRI
LA ENGLISH
REC Reference Count: 39
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L3 ANSWER 54 OF 59 MEDLINE on STN DUPLICATE 20

AN 93005716 MEDLINE
DN PubMed ID: 1392588
TI Cutinase is not required for fungal pathogenicity on pea.
AU Stahl D J; Schafer W
CS Institut fur Genbiologische Forschung Berlin GmbH, Germany.
SO Plant cell, (1992 Jun) 4 (6) 621-9.
Journal code: 9208688. ISSN: 1040-4651.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199211
ED Entered STN: 19930122
Last Updated on STN: 19930122
Entered Medline: 19921113

L3 ANSWER 55 OF 59 MEDLINE on STN DUPLICATE 21

AN 92212280 MEDLINE
DN PubMed ID: 1557024
TI Disruption of a Magnaporthe grisea cutinase ***gene***
AU Sweigard J A; Chumley F G; Valent B
CS Central Research and Development, E.I. du Pont de Nemours and Co.,
Wilmington, DE 19880-0402.
SO Molecular & general genetics : MGG, (1992 Mar) 232 (2) 183-90.
Journal code: 0125036. ISSN: 0026-8925.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199205
ED Entered STN: 19920515
Last Updated on STN: 19990129
Entered Medline: 19920506

L3 ANSWER 56 OF 59 MEDLINE on STN DUPLICATE 22
AN 91376113 MEDLINE
DN PubMed ID: 1896470
TI Identification of a fungal cutinase promoter that is inducible by a plant
signal via a phosphorylated trans-acting factor.
AU Bajar A; Podila G K; Kolattukudy P E
CS Ohio State Biotechnology Center, Ohio State University, Columbus 43210.
SO Proceedings of the National Academy of Sciences of the United States of
America, (1991 Sep 15) 88 (18) 8208-12.
Journal code: 7505876. ISSN: 0027-8424.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199110
ED Entered STN: 19911108
Last Updated on STN: 19911108
Entered Medline: 19911021

L3 ANSWER 57 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
AN 1990-04531 BIOTECHDS
TI Rice blast as a model for plant pathology;
Magnaporthe grisea ***cutinase*** -deficient ***mutant***
construction, ***gene*** cloning and genetic engineering
(conference paper)
AU Valent B
CS Du-Pont
LO E.I. du Pont de Nemours and Company, Inc., Central Research and
Development Department, Experimental Station, E402, Wilmington, DE
19880-0402, USA.
SO Phytopathology; (1990) 80, 1, 33-36
CODEN: PHYTAJ
DT Journal
LA English

L3 ANSWER 58 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
AN 1989-02922 BIOTECHDS
TI Cutinase for use in detergent composition produced by culturing
Pseudomonas putida;
Fusarium solani, Helminthosporium sativum, Ulocladium consortiale,
Streptomyces scabies, Colleotrichum capsici, Phytophthora cactorum,
Botrytis cinerea, etc.
PA Genencor
PI WO 8809367 1 Dec 1988
AI WO 1988-US1844 31 May 1988
PRAI US 1987-56500 29 May 1987
DT Patent
LA English
OS WPI: 1988-353946 [49]

L3 ANSWER 59 OF 59 MEDLINE on STN DUPLICATE 23
AN 87056987 MEDLINE
DN PubMed ID: 3782031
TI Isolation of a Fusarium solani ***mutant*** reduced in

cutinase activity and virulence.
 AU Dantzig A H; Zuckerman S H; Andonov-Roland M M
 SO Journal of bacteriology, (1986 Nov) 168 (2) 911-6.
 Journal code: 2985120R. ISSN: 0021-9193.
 CY United States
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals
 EM 198612
 ED Entered STN: 19900302
 Last Updated on STN: 19970203
 Entered Medline: 19861224

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(FILE 'HOME' ENTERED AT 19:03:00 ON 08 APR 2005)

FILE 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS,
 NTIS, ESBIODBASE, BIOTECHNO, WPIDS' ENTERED AT 19:03:12 ON 08 APR 2005

L1 242 S CUTINASE (5A) (VARIANT OR MUTA? OR SUBSTITUT?)
 L2 138 S L1 AND (SEQUENCE OR GENE)
 L3 59 DUP REM L2 (79 DUPLICATES REMOVED)

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| FULL ESTIMATED COST | 112.76 | 112.97 |
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| | ENTRY | SESSION |
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